

10/539276

In the Claims:

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Please amend the claims as follows:

1. (currently amended) A method for manufacturing a power capacitor comprising at least one capacitor element (1), wherein the capacitor element (1) comprises a roll of alternate dielectric films (4) and electrode films (2,3), wherein the roll has first and second end surfaces (5,6), facing away from each other, in which said electrode films (2,3) are connectably exposed, characterized in that the method comprising:

preheating a solder tip (21) ~~is preheated~~ in a pot (20) with a preheated solder, ~~that~~
coating the solder tip ~~is then coated~~ with solder, whereupon at least one of the end surfaces (5,6) of the capacitor element is coated with at least one solder by bringing the solder tip (21) into contact with said end surface (5,6), ~~that~~
bringing the contact ~~is brought~~ to cease, and ~~that~~
fixing at least one lead (7,9) ~~is fixed~~ by soldering to said end surface (5,6).

2. (currently amended) A The method according to claim 1, ~~characterized in that~~
wherein the capacitor element (1) is wound from the electrode films, comprising a first ~~aluminium~~ aluminum foil (2) and a second aluminum foil (3), with at least one intermediate dielectric film (4) of a polymer material, wherein the first ~~aluminium~~ aluminum foil (2) at the first end surface (5) of the capacitor element is arranged so as to project outside the edge of the polymer film (4), whereas at the same first end surface of the edge of the capacitor element the edge of the second ~~aluminium~~ aluminum foil (3) is arranged with its edge inside the edge of the

polymer film (4) so that the end (5) of the capacitor element exhibits the shape of a roll of the first ~~aluminium~~ aluminum foil (2) only and the second ~~aluminium~~ aluminum foil (3) is arranged so that the second end (6) of the capacitor element in a corresponding way exhibits the shape of a roll of the second ~~aluminium~~ aluminum foil (3) only, that wherein the solder tip comprises an active tip (26) which is coated with the solder, and ~~that~~ wherein the solder tip (21), after having been brought into contact with the end surface (5,6) of the capacitor element, is moved along the end surface (5,6) of the capacitor element.

3. (currently amended) A The method according to claim 2, ~~characterized in that~~ wherein the movement is carried out in one sequence comprising a starting point (P1), two turning points (P2, P3) between which the solder tip (21) is moved in one or more cycles, and one end point (P4) from which the solder tip (21) is removed from the end surface (5,6) of the capacitor element, whereby the first or the second turning point (P2, P3) may be the same as the starting point (P1) or the end point (P4).

4. (currently amended) A The method according to ~~any of claim 2 or 3, characterized in that~~ claim 2, wherein the speed of movement of the solder tip along the end (5,6) of the capacitor element is between 0 m/s and 0.1 m/s.

5. (currently amended) A The method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the solder tip (21) when first being brought into contact with the end (5,6) of the capacitor element presses down the end surface (5,6) of the capacitor element.

6. (currently amended) A The method according to claim 5, ~~characterized in that~~ wherein the solder tip (21) is pressed down to a depth of between 0 and 6 mm in the end surface (5, 6) of the capacitor element.

7. (currently amended) A The method according to claim 6, ~~characterized in that~~ wherein the solder tip (21) is arranged on a shaft (22), whereby the shaft is journalled in a bearing housing (23) which permits relative axial movement, wherein the depth into which the solder tip (21) is pressed down is determined by the total weight of the solder tip (21) and the shaft (22) and by the friction in the bearing housing (23).

8. (currently amended) A The method according to claim 6, ~~characterized in that~~ wherein the solder tip (21) is arranged on a shaft (22), whereby the shaft is journalled in a bearing housing (23) that permits relative axial movement, and that wherein the shaft (21) is provided with a compression spring (27), whereby the depth into which the solder tip (21) is pressed down is determined by the total weight of the solder tip (21), the shaft (22) and the compression spring (27), the friction in the bearing housing (23) plus the compression of the compression spring (27).

9. (currently amended) A The method according to ~~any of the preceding claims,~~ characterized in that claim 1, wherein the solder tip (21) is arranged on a shaft (22), whereby the solder tip (21) during the pre-soldering is brought to rotate in the direction of rotation of the shaft (22).

10. (currently amended) ~~A~~ The method according to claim 9, ~~characterized in that~~
wherein the solder tip (21) is brought to rotate in one or the other direction of rotation, or ~~that~~
wherein the rotation is reversing.

11. (currently amended) ~~A~~ The method according to claim 10, ~~characterized in that~~
wherein the rotation is less than one complete turn, that is, is less than 360°.

12. (currently amended) ~~A~~ The method according to ~~any of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the temperature of the solder in the solder pot is in the
interval of between 300°C and 400 °C.

13. (currently amended) ~~A~~ The method according to ~~any of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the solder contains tin and zinc.

14. (currently amended) ~~A~~ The method according to claim 13, ~~characterized in that~~
wherein the solder contains 75% tin and 25% zinc.

15. (currently amended) Equipment (10) for carrying out the method according to ~~any of~~
~~claims 1-14, characterized in that it comprises~~ claim 1, the equipment comprising:

a solder pot (20),

a solder head (12), ~~whereby the solder head is arranged with~~ comprising a first linear
module (13) for movements in the x-direction (horizontally) and a second linear module (14) for

movements in the y-direction (vertically), and

a press unit (15) for fixing the capacitor elements (4), and

a steel frame on which ~~wherein~~ the solder pot (20), the solder head (12), the first and second (13, 14) linear modules and the press unit (15) are arranged ~~on a steel frame (11)~~.

16. (currently amended) ~~Equipment~~ The equipment according to claim 15, ~~characterized in that~~ wherein the solder head (12) ~~is arranged with~~ comprises a solder tip (21) ~~provided with~~ including an active tip (26), said solder tip being arranged on a shaft (22) and a turning device (25), whereby the shaft (22) is connected to the turning device (25) with an insulating shaft (24) and whereby the shaft (22) is journaled in a bearing housing (23).

17. (currently amended) ~~Equipment~~ The equipment according to claim 16, ~~characterized in that~~ wherein the shaft (22) and the insulating shaft (24) are arranged so that a guide pin prevents relative axial movement.

18. (currently amended) ~~Equipment~~ The equipment according to claim 16, ~~characterized in that~~ wherein the shaft (22) and the insulating shaft (24) are arranged so that a guide pin, running in an axial slit, makes possible a relative axial movement.

19. (currently amended) ~~Equipment~~ The equipment according to claim 18, ~~characterized in that~~ wherein a compression spring (27) is arranged between the shaft (22) and the turning device (25), whereby the compression spring (27) counteracts the shaft (22) being moved in a direction towards the turning device (25).

20. (currently amended) ~~Equipment~~ The equipment according to ~~any of claims 16-19,~~
~~characterized in that~~ claim 16, wherein the turning device (25) is arranged so that a rotating
movement is transmitted to the solder tip (21).

21. (currently amended) ~~Equipment~~ The equipment according to ~~any of claims 16-20,~~
~~characterized in that~~ claim 16, wherein the active tip (26) is arranged with a rotationally
symmetrical cross section.

22. (currently amended) ~~Equipment~~ The equipment according to claim 21, ~~characterized~~
~~in that~~ wherein the active tip (26) is arranged with a smooth end surface.

23. (currently amended) ~~Equipment~~ The equipment according to claim 21, ~~characterized~~
~~in that~~ wherein the active tip (26) is arranged with an end surface with turned circular recesses.

24. (currently amended) ~~Equipment~~ The equipment according to claim 21, ~~characterized~~
~~in that~~ wherein the active tip (26) is arranged with recesses so as to form a grid-like pattern on
the end surface.

25. (currently amended) ~~Equipment~~ The equipment according to claim 21, ~~characterized~~
~~in that~~ wherein the active tip (26) is arranged with a cupped end surface.

26. (currently amended) ~~Equipment~~ The equipment according to ~~any of claims 16-20,~~

~~characterized in that~~ claim 16, wherein the active tip (26) is arranged with a rectangular cross section.

27. (currently amended) ~~Equipment~~ The equipment according to ~~any of claims 15-26,~~
~~characterized in that~~ claim 15, wherein the equipment (10) ~~is provided with~~ comprises a
~~Programmable Logic Controller (PLC)~~ programmable logic controller and a control panel for
controlling the solder pot (20), the solder head (12), the first and second linear modules (13, 14),
and the press unit (15).